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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,818	03/29/2004	Cheuh-Ju Chen		5045
25859	7590	07/14/2005		
WEI TE CHUNG FOXCONN INTERNATIONAL, INC. 1650 MEMOREX DRIVE SANTA CLARA, CA 95050			EXAMINER CHIEN, LUCY P	
			ART UNIT 2871	PAPER NUMBER

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/812,818	Applicant(s) CHEN ET AL.	
	Examiner Lucy P. Chien	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1-17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3,9-12,17, and 18 of U.S. Patent No. 10/812566. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-17 of application 10/812818 are anticipated by claims 1-3,9-12, 17, and 18 of application 10/812566.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in face been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-4,14,15 are rejected under 35 U.S.C. 102(b) as being anticipated by Park (US 5949511).

Regarding Claim 1,

Park discloses (Figure 4a) a first substrate (111) and a second substrate (110) disposed oppositely and spaced apart from a predetermined distance. A liquid crystal layer (119) interposed between the first substrate (111) and the second substrate (110). A plurality of common electrodes (106a) and pixel electrodes (105a) formed on the first substrate (111) parallel to each other and a plurality of conductive spacers (130) formed on the common electrodes (106a) and the pixel electrodes (105a).

Regarding Claim 2,

Park discloses (Figure 3) the spacers (shown in Figure 4a (130)) comprising of spacer ribs (shown with vertical lines in Figure 3) and a conductive film (106a or 105a).

Regarding Claim 3,

Park discloses (Figure 3) where the spacer ribs (shown with vertical lines in Figure 3) has a form of parallel piped (shown with vertically aligned blocks).

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Regarding Claim 4.

Park discloses (Figure 3) the conductive film (106a) covers the whole surface of the spacer ribs (135b and the vertically aligned blocks).

Regarding Claim 14.

Park discloses (Figure 4a) an alignment film (121a) formed the second substrate (110) and another alignment layer (121b) formed on the first substrate (111).

Regarding Claim 15.

Park discloses (figure 4a) a color filter (117) formed on an inner surface of the second substrate (111) facing the liquid crystal layer (119).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5,6,8,10,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US 5949511) in view of Morri et al (US 6141078).

Regarding Claim 5.

Park does not disclose the spacer rib is made of glass.

Morri et al discloses (Column 8, Row 20-27) the use of glass spacers because it is effective in achieving a desired dimensional accuracy.

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It would have been obvious to one of ordinary skill in the art, at the time when the invention was made to modify Park's display to include Morri et al's glass spacer in order to achieve a desired dimensional accuracy. (Morri et al, Column 8, Row 20-27)

Regarding Claim 6.

In addition to Park and Morri et al as disclosed above, Park nor Morri et al does not disclose the glass spacer to made of SiO₂. It is known that silicon dioxide is a common component to construct glass. Thus, it would have been obvious to one of ordinary skill in the art, at the time when the invention was made to have the glass spacers made of SiO₂.

Regarding Claim 8.

In addition to Park and Morri et al as disclosed above, Morri et al also discloses (Column 1, Row 61-67) the conductive film is made of metal which is a good conductor.

Regarding Claim 10.

In addition to Park and Morri et al as disclosed above, Morri et al also discloses (Column 11, row 9-13) the substrates being made of Glass used to define and maintain a distance between substrates and this determines the thickness of the liquid crystal layer.

Regarding Claim 13.

In addition to Park and Morri et al as disclosed above, Morri et al also discloses in figure 2 a polarizer(5) formed on one side of the first substrate (1) and another polarizer (6) on one side of the second substrate (4).

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Claim 7,9,11,12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US 5949511) in view of Matsumoto (US 6657699).

Regarding Claims 7 and 9,

Park does not disclose the conductive films such as the common electrodes and pixel electrodes are made of ITO.

Matsumoto teaches the conductive films to be made of ITO. (Column 20, lines 40-46; Figure 26 (9c)).

It would have been obvious to one of ordinary skill in the art, at the time when the invention was made to modify Park's display to include Matsumoto's conductive films made of ITO which is a common material it is used because it is a good conductor.

Regarding Claim 11,

In addition to Park and Matsumoto as disclosed above, Matsumoto discloses in Figure 8 an insulating film (4) disposed between the common electrode (3) and the pixel electrode (7).

Regarding Claim 12,

In addition to Park and Matsumoto as disclosed above, Matsumoto discloses in (Column 9, Row 56-66) the insulating film made of Silicon Oxide.

Claim 16,17 are rejected under 35 U.S.C. 103(a) as being anticipated by Kim (US 5338240) in view of You et al (US 6243154).

Regarding Claim 16,

Kim discloses in Figure 3,

A first substrate (10a) and a second substrate (10b) disposed oppositely and spaced apart from a predetermined distance

A liquid crystal layer (located where the spacers are) interpose between the first substrate (10a) and the second substrate (10b)

A plurality of pixel electrodes (12a) formed on the first substrate (10a).

A plurality of spacers (22) formed on the pixel electrodes (7) and directly contacting the second substrate (10b) so that crystals of the liquid crystal layer (located where the spacers are) are substantially fully enclosed among the first substrate (10a), the second substrate (10b).

Kim does not disclose the common electrodes.

You et al discloses (Column 2, Row 35-42) using common electrodes that controls which liquid crystals responds to an electric charge.

It would have been obvious to one of ordinary skill in the art, at the time when the invention was made to modify Kim's display to include You et al's common electrode to improve the viewing angle. (column 2, row 20-23)

Regarding Claim 17,

In addition to Kim and You et al as disclosed above, Kim discloses (Figure 3) the alignment layers (16a) horizontally located among the spacers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucy P. Chien whose telephone number is 571-272-8579. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lucy Chien
Examiner
Art Unit 2871
LC


DUNG T. NGUYEN
PRIMARY EXAMINER